

## SECTION 11680 – HEADWALLS

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Related Documents: Conditions of the Contract, Division 1 - General Requirements, Section 11600 - Laboratory Equipment - General Requirements, and Drawings, apply to Work of this Section.
- B. This Section includes, but is not limited to, all materials, labor and equipment, complete with all anchors and related accessories, necessary to furnish, deliver and install:
  - 1. Bed Docking Locations
  - 2. Horizontal Headwalls
  - 3. Accessories
- C. Although such work is not specifically shown or specified, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
- D. The Manufacturer shall be responsible for coordinating with architect and manufacturers of equipment not supplied by the system manufacturer, to insure compatibility with the equipment.
- E. For general requirements applicable to this and all other Laboratory Equipment Specification Sections including, but not limited to definitions, system description, submittals, quality assurance, mock-up, testing, field measurements, pre-installation conference, delivery, storage and handling, project conditions, and sequencing requirements, refer to Specification Section 11600 - Laboratory Equipment - General Requirements.

#### 1.02 CERTIFICATIONS

- A. The headwalls shall be listed by Underwriters Laboratories Inc. Supplier to furnish U.L. listing numbers with quotations.
- B. Provide certification for each item, that the products provided have been evaluated by the National Recognized Testing Laboratory (NRTL) to the applicable ANSI/UL and CSA Standards, for use in the US.
- C. The recommendation of the National Fire Protection Association (NFPA), the National Electrical Code (NEC) the state and local codes that apply to this installation shall be adhered to in all respects. The installing contractor shall be responsible for compliance with all local, state and federal codes applicable to this installation.

#### 1.03 RELATED SECTIONS:

- A. Section 11600 - Laboratory Equipment - General Requirements

- B. Division 15 - Mechanical: Mechanical contractors shall provide primary services and make connections to appropriate installed mechanical equipment of the headwall and power column systems as shown on plans and as herein specified.
- C. Division 16 - Electrical: Contractor shall install headwall and power column systems and related equipment, wiring and conduit and make necessary connections as shown on the plans and as herein specified.

#### 1.04 SEQUENCING

- A. Sequence work under provisions of Division 1.
- B. Coordinate with plumbing rough-in requirements specified in Division 15.
- C. Coordinate with mechanical requirements specified in Division 15.
- D. Coordinate with electrical rough-in requirements specified in Division 16.

### PART 2 - PRODUCTS

#### 2.01 GENERAL

- A. For general requirements applicable to this and all other Laboratory Equipment Specification Sections including, but not limited to, manufacturers, materials, components, and finish and performance requirements, refer to Specification Section 11600 - Laboratory Equipment - General Requirements.

#### 2.02 BED DOCKING LOCATION

- A. Acceptable Manufacturers & Products:
  - 1. Hill-Rom, Batesville, IN (Model # Bed Locator P0052B1)
  - 2. The Headwall Company, Oklahoma City, OK
  - 3. Amico Corporation, Amityville, NY
- B. Description:
  - 1. The Bed Locator shall provide a "docking" location for the patient bed that will position the bed and protect the wall.
  - 2. The Bed Locator shall have access to electrical devices on each side. Provide devices as shown on Lab Drawings.
  - 3. Services shall be segregated into compartments and shall be pre-installed. Devices are pre-wired to service termination locations and shall be ready for connection to the incoming services being fed from the building wall behind.
  - 4. The Bed Locator module shall incorporate 16-gauge steel housing for installation of the electrical devices. This housing shall be trimmed with a single piece, high-impact plastic cover.

## 2.03 HORIZONTAL HEADWALL

### A. Acceptable Manufacturers & Products:

1. Hill-Rom, Batesville, IN (Model # Uniflex 1000)
2. The Headwall Company, Oklahoma City, OK
3. Amico Corporation, Amityville, NY

### B. Description:

1. The Headwall System shall be a single-tier horizontal raceway mounted to the headwall behind the patient bed at a specified level. These raceways provide the following functions:
  - a. A raceway for placement of electrical devices, low voltage devices, communications & medical gas outlets
  - b. Physical structure for supporting ancillary equipment
  - c. Raceway for routing plumbing external of the headwall for fixed gases
2. The vertical frame sections shall include a precision alignment mechanism that insures proper positioning of horizontal rail and channel components. Vertical frame sections shall become an integral part of the building wall.
3. Horizontal channels shall be continuous length, as shown on Lab Drawings, and shall be field attached to the horizontal rail and vertical frame sections. Channel fasteners shall be concealed behind a snap-in vinyl trim. The lower channel surface shall be flat and smooth to facilitate ease of cleaning. Channels shall be removable to allow replacement as necessary. Finish shall be powder coated.
4. Horizontal Channel Accessories shall be available as manufacturer's standard in a sufficient variety to meet the needs of typical hospital applications. A horizontal channel bracket that automatically locks in place shall be provided. The bracket shall include a plastic locking pad to protect the surface finish of the channel and shall be designed for one hand operation.
5. The horizontal component rail shall be designed to accept standard depth components such as medical gas outlets, clocks, electrical plugs, and light switches, as shown on Lab Drawings.

### C. Construction:

1. Horizontal component rail: Heavy gauge anodized aluminum profiles with a removable horizontal accessory channel.
2. Channels shall have a powder coated finish.
3. Component fascia. Aluminum or steel with a high pressure laminate finish. Device plates shall be powder coated.

### D. Electrical:

1. Wiring line voltage: Each vertical frame section shall be completely pre-wired with service connections terminating above the accessible ceiling line or as otherwise indicated on the contract drawings.
2. Low Voltage Provisions: Provisions for low voltage communication devices shall consist of back boxes or barriered compartments. Communication devices and wiring shall be

supplied and installed by others. Refer to Lab Drawings for type and quantity of required devices.

3. Devices Hospital grade power receptacles, ground jacks switches, etc. shall be as indicated on contract drawings.

E. Medical Gas:

1. Piping: Medical gas outlets shall be pre-manifolded using Type "L" copper and shall terminate near the top of each vertical frame section or as otherwise indicated on contract drawings. Piping fittings and brazing procedure shall be in accordance with NFPA 99. All joints shall be made with a silver brazing alloy with a melting point of at least 1000 degrees. Tubing ends shall be securely capped and properly identified. To prevent galvanic corrosion, all copper tubing shall be protected from contact with dissimilar materials.
2. Medical Gas Outlets: Outlets shall be manufacturer's standard brand. Type and style shall be as called for in the contract drawing.

F. Provisions For Equipment By Others

1. An appropriately sized conduit and compartment shall be provided for the installation of microphone and its associated wiring.
2. Provide blank openings with face plates for future expansion of services, as indicated on Lab Drawings. Openings shall be one gang.

## 2.04 ACCESSORIES

- A. All headwalls shall have a horizontal channel or vertical track, making organization easy and convenient. All accessories shall be provided with all required mounting hardware and adapters.
- B. Refer to Lab Drawings for quantity and location or required accessories. Accessories shall include:
1. Universal Holders for otoscopes, ophthalmoscopes, and thermometers.
  2. Tilt Swivel Monitor Arm
  3. Sharps Container and Mounting Bracket Assembly
  4. Manual Resuscitation Holder
  5. Glove Box Holder
  6. L-Bracket and Basket for aneroid manometer
  7. I.V. Trees
  8. Utility Shelves
  9. Large Storage Basket

## 2.05 FASTENERS AND ANCHORS

- A. Fasteners and Anchors: Size and type to securely fasten and anchor items to substrates and supporting structure.

- B. Provide miscellaneous fillers and panels required for a finished installation.

## PART 3 - EXECUTION

### 3.01 GENERAL REQUIREMENTS

- A. For General Installation Requirements applicable to this and all other Laboratory Equipment Specification Sections including, but not limited to, examination, installation, adjusting, cleaning, and protection requirements, refer to Specification Section 11600 - Laboratory Equipment - General Requirements
- B. The headwall manufacturer shall examine and test each unit for compliance with specification requirements. Such inspections as set forth in this specification or otherwise necessary shall be performed to insure that the equipment conforms to specifications.

### 3.02 ADDITIONAL INSTALLATION REQUIREMENTS

- A. Site Verification of Conditions: Verify that temperature and humidity at site comply with manufacturers written requirements.
- B. Install in accordance with manufacturer's instructions.
- C. Install in accordance with codes, regulations and standards required by the authority having jurisdiction.
- D. Verify that field measurements are as shown on shop drawings.
- E. Verify that mechanical, electrical, and other items affecting work of this section are in place and ready to receive the work.
- F. Interface with Other Work. Install items in a sequence to not delay work.
- G. Site Tolerances: Install wall-to-wall countertops with a maximum 1/4 inch gap.
- H. The manufacturer of the headwalls and power columns shall supply a conduit drop template for proper location & orientation of conduit & piping drops
- I. Mounting hardware and instruction shall be furnished by manufacturer.

### 3.03 FIELD CERTIFICATIONS

- A. Perform Field Certifications: See Part 1- General of this specification section for Field Certifications required.
- B. After installation, equipment shall be examined and tested by installing contractor under operating condition to determine that each component of the assembly has been installed correctly and functions properly.

### 3.04 DEMONSTRATION

- A. Demonstration and Instruction of Owner's Personnel: Provide in accordance with Division 1.
- B. Demonstrate all equipment operations, functions and field certification process. Supply instructional materials.
- C. Make available to Owner's employees.

END OF SECTION 11680